

# Description of the West Coast Groundfish Fishery and the Trawl Catch Share Program

## OVERVIEW

In November 2008, the Pacific Fishery Management Council (PFMC) voted to fundamentally reform the management system for the groundfish trawl fishery by approving a catch share plan in the form of Individual Fishing Quotas (IFQs). This program, to be implemented in January 2011, has been repeatedly approved by the PFMC and has won the endorsement of the states of Oregon, Washington, and California.

The catch share plan was six years in the making, and many involved in its development consider it a model plan because it includes innovative measures that balance the needs of the fishery with those of communities, new fishery entrants, and small boat fishermen. Environmental Defense Fund (EDF) has been heavily engaged in the development of the IFQ program, and believes implementing it is necessary to reverse the fishery's downward economic and ecological spiral. Without this program, we would expect to see a continuation of the decline of fishing communities and fish stocks that has plagued this fishery for the past twenty years.

So, what is happening under status quo management of the groundfish trawl fishery? In sum, it is failing fish and it is failing fishermen. Fishermen are going bankrupt, fishing ports are struggling and critical infrastructure is rapidly deteriorating.

- "Trip limits," one of the primary tools of conventional fisheries management, force wasteful regulatory discards (dumping fish overboard mostly dead) and prevent fishermen from harvesting efficiently.
- Only about 20% of the catch is monitored. This requires fishery managers to extrapolate bycatch rates for the fleet as a whole. It also means that fishermen who "fish cleaner" than others, in effect subsidize those who are unable or unwilling to fish in a way that avoids sensitive species.
- Finally, fishermen have little incentive to innovate. Trip limits constrain much of the potential flexibility and market timing that could improve fleet revenues, and fleet-wide bycatch rates mean that developing cleaner fishing gear or practices will not result in any benefit to the innovator.

In contrast, the analysis for the IFQ plan suggests that the transition is likely to generate millions of dollars more income at the fleet level, and will get rid of wasteful regulatory discards and reward those fishermen who are best able to avoid sensitive, overfished species.

During the program design process, fishermen, environmental groups, other interested parties and the PFMC itself paid special attention to social, environmental, and economic goals to ensure that individual operators will continue to land fish in traditional groundfish ports; that the economic downward spiral of the last two decades will be reversed; and that the resource will recover and grow, allowing for a vibrant groundfish fishery off of Oregon, Washington, and California for generations to come.

## **BACKGROUND OF THE GROUND FISH FISHERY**

The groundfish fishery is a federal fishery governed by the PFMC, a stakeholder body that formally advises the National Marine Fishery Service on management of fisheries in federal waters off Oregon, Washington and California. The fishery is comprised of four commercial sectors – limited entry trawl, sablefish endorsed limited entry fixed gear, non-endorsed limited entry fixed gear, and open access. The trawl fishery uses bottom contact and pelagic nets, while the other sectors employ hook and line and pot gear. There is also a major recreational component to the fishery, and substantial participation by the Washington Coast Treaty Tribes. The groundfish fishery as a whole is typically the most valuable fishery on the West Coast, although the Dungeness crab fishery generates more revenue in some years.

Of the four commercial sectors, only the open access sector allows participation without first purchasing a limited entry permit. The other sectors have limited participation to those with permits since 1994. There are roughly 170 trawl permits, 160 sablefish endorsed permits, and 65 non-endorsed permits. There are as many as 700 or 800 open access participants, although only 200 or 300 can be considered “substantially engaged” in any given year. The trawl fishery accounts for over 90% of the total volume of the fishery.

Over 90 different species, most of which live on or near the bottom of the ocean, are covered by the groundfish management plan. Important catches include black cod, petrale sole, Dover sole, whiting/hake, and rockfish. There are currently 7 overfished species of rockfish and 1 overfished flatfish species in the fishery. Yelloweye rockfish, the species expected to take longest to recover, is not expected to rebuild (i.e. return to at least 40% of unfished biomass) until 2084.

The groundfish fishery is a mixed stock fishery, which means that it is difficult to target any single species without also catching some other species, including overfished stocks. Trawl gear is the least selective, although hook and line gear also has very high bycatch rates of certain overfished species, including yelloweye rockfish.

Responding to the rebuilding requirements of the Magnuson Stevens Act, the PFMC closed large areas to fishing and reduced trip limits (i.e. the amount of fish allowed to be landed in a given period), which has resulted in economic hardship for the fleet. In 2000, the fishery was declared a federal disaster, and in 2003 a federal buyout was instituted removing almost half of the capacity of the trawl fleet.

Despite the buyback, a recent study suggests that the trawl fleet generates zero economic profit at the fleet level. Skippers and crews are having a more difficult time making a living and infrastructure is rapidly deteriorating. Because the trawl fleet lands such a large volume of fish, its health is critical to maintaining fishing infrastructure (e.g. ice machines, hoists, processing capacity etc.) needed by a large number of other fisheries including all the groundfish sectors, as well as salmon, crab, shrimp and others.

## **CATCH SHARE PROGRAM FOR THE TRAWL FISHERY**

In response to the bycatch problems and economic hardship in the fleet, in 2003 the PFMC (often simply referred to as “the Council”) began a stakeholder-driven process to explore catch shares as a possible solution. The stated goals were to improve individual

accountability, reduce bycatch, and improve economic efficiency, among others. The Council noted that the current fishery management system was “economically unsustainable due to the number of participating vessels (excess capacity), a regulatory approach that constrains efficiency, and the status of certain groundfish stocks...” (Preliminary Draft EIS, October 2008, p. iv)

After dozens of public meetings in all three West Coast states and significant stakeholder input, in November 2008, the Council voted to approve a catch share program for the fishery.

### **HOW THE CATCH SHARE PROGRAM WILL WORK**

As they do each year, the Council will set a total allowable catch (TAC) of each species or group of species in the groundfish plan based on scientific stock assessments. Prior to the first year of the catch share program, each trawl permit holder will be issued a secure percentage “share” of the allowable trawl harvest of each species or species complex based on a specified initial allocation formula.

Once the catch share program is implemented, the trawl portion of allowable catch will be divided among the individual trawl permit holders in the fishery. While annual quota pounds can always be traded among fishermen during the fishing year, quota shares only become transferable in the third year (and in subsequent years) of the program. In this program, fishermen, processors, communities, ports, NGOs and others are eligible to own quota share.

Since fishermen know exactly how much fish they are allowed to take each year before the season begins, they can plan for the season and enter into more secure marketing and processing arrangements. Fishermen will also have the flexibility to time landings to the best market conditions over the year.

Under catch shares, fishermen have increased freedom to streamline their businesses and are held individually accountable for every fish brought on board their vessels. One 'stick' in this carrot-and-stick approach is that if fishermen exceed their share of the catch, they have to buy additional quota on the open market.

In the trawl program, fishermen who are not able to cover excess catch by purchasing quota from other fishermen will be prevented from fishing for up to two years. In addition, quota for the overfished species is likely to be the most expensive because the TAC for those species will be low and therefore the amount of quota in circulation will be low. This will create a significant incentive for fishermen to fish as cleanly as possible by avoiding known hotspots for overfished species and by developing innovative gear that will keep those species out of the nets. The fishermen best able to avoid the overfished species will fare best economically as they will be able to continue to land the rest of their portfolio of quota without being shut down. They will also be able to sell or lease their quota of overfished species to other fishermen. Evidence also shows that catch shares overcome the “tragedy of the commons” by providing a clear economic rationale for conserving resources. In much the same way shareholders in a company want the business to excel so their shares gain value, fishermen in catch share systems need the fishery to remain sustainable.

## CONSERVATION BENEFITS

- **Less regulatory discard** – Under current management, fishermen are limited to a certain amount of each species in any given period. Because it is a mixed stock fishery, fishermen often catch too much of one species while trying to fill out their limit of another. The remaining fish are required by law to be discarded, almost always dead. This is wasteful, both environmentally and economically. Under a catch share system there will be significantly less regulatory discard. Even if a fisherman exceeds his own quota, he can purchase additional quota from other fishermen (subject to strict control caps). In many catch share programs, this occurs in real time, while at sea. The result is greater revenue for fishermen (less fuel and time expended per fish caught) and significant reductions in waste.
- **Gear switching** – Under current management, all limited entry permits are gear endorsed, meaning a fisherman may only use the type of gear specified on the permit. Under the catch share program, trawl fishermen will be allowed to use fixed gear (hook and line and pot gear), which creates less harmful bottom contact and often results in lower bycatch (particularly in the case of pot gear). Because fishermen will now be responsible for all of the fish they catch and will have to pay dearly for bycatch quota – particularly for overfished species because there won't be very much to go around – they will have a significant incentive to fish in the cleanest manner possible, benefitting their own bottom line along with the resource and habitat.
- **100% observer coverage** – Under current management, observers cover about 20% of trawl trips. What this means at a practical level – and fishery managers will readily admit it – is that data is unreliable from non-observed vessels. It is widely believed that there is an observer bias, (i.e. fishermen fish in different areas or use different methods with an observer on the boat), so it is nearly impossible to document the actual level of total fishing mortality, particularly for overfished species, due to the high number of unobserved trips. Under the proposed catch share system, observers will be required on every trip. This will result in greater management certainty, less discarded bycatch – because fishermen will have to buy quota on the open market to cover every fish caught – and significantly greater individual accountability. Down the road, it is also quite likely that 100% observer coverage will lead to more accurate stock assessments. Although counterintuitive, many fishermen support this component of the program. Under conventional management, with its lack of individual accountability, “clean” fishermen subsidize “dirty” fishermen, as bycatch rates are calculated fleet-wide. Under the new approach, clean fishermen will benefit economically, and dirty fishermen will adopt better techniques or be forced out of the fishery.

## SAFEGUARDS

Critics contend that if catch share programs are developed in a way that fails to take into account the characteristics of the fishery and the needs of fishing communities, there is a risk that large companies may acquire an increasing interest in the fishery at the expense of smaller, independent operators and/or “mom and pop” companies.

In fact, under conventional management fishermen are barely making a living as stocks decline. For example, it is estimated that 10-15% of the fleet will go out of business as a result of the recent overfished designation for petrale sole. The transition to catch shares fixes a central failure of current management by aligning fishing effort with the available resource. This is especially the case for West Coast groundfish; fishermen and managers are painfully aware that there are just not enough fish to allow the current number of fishermen to fish profitably. In fact, NOAA found, in a 2007 analysis, that the level of profit in the fishery was zero.

The bottom line is that overcapacity must be addressed, because it is harming the fishery. Under status quo management, fishermen are simply going bankrupt and infrastructure is being lost, harming the economic well-being of other fisheries at the same time. Under catch shares, there are key factors that mitigate the necessary reduction in capacity.

Specifically, fishermen have an asset that they can sell if they choose to exit the fishery. They do not simply lose their investment, which is what is currently happening.

In the development of the groundfish trawl IFQ program, the PFMC and stakeholders developed safeguards to balance social, conservation and economic goals, as outlined below.

- **Concern over excess consolidation** – One of the primary goals of this plan is to improve economic efficiency, and this necessitates some fleet consolidation. Due to the constraints imposed by rebuilding species, there simply aren't enough fish to support the number of vessels in the fleet. The Council recognized that explicitly and highlighted reducing overcapacity as one of the goals of the program. But the Council also recognized that excess consolidation could be problematic for communities and crew that depend upon vessels remaining in the fishery. Because of that, the Council developed strict accumulation "control caps" for each species in the plan, as well as a "vessel aggregate caps."
- **Individual species control caps** – Lingcod - 2.5%, sablefish 3%, dover sole 2.6%, petrale sole 3%. These species-specific caps were consciously designed to accommodate existing landings by individual permits.
- **Aggregate caps** – The aggregate cap of 2.7% was designed to allow one fisherman or business entity to operate two groundfish vessels, but no more. It says, in effect, that no fisherman or business entity can own more than 2.7% of the total fishery. This aggregate cap will require several of the fishing entities that exceed the caps to sell their quota over the coming four years, to get to the point where they are in compliance with the quota ownership caps. These limits on quota ownership were designed to be fair to the investments that fishermen and processors have already made in the fishery, but to balance that with a commitment to making sure that a diversity of fishing vessel size was maintained, therefore helping to ensure that communities did not experience negative impacts from the IFQ program.
- **Capping out and accountability** – Because of the mixed stock nature of the fishery, it is highly unlikely that most fishermen will be at the caps for all species. And there are strict data collection requirements forcing entities to divulge ownership interests to ensure compliance with the caps.

- **Concern over initial allocation** – The trawl fishery is far from homogeneous. Some boats are around 50 feet in length, while a few stretch to over 100 feet. In order to protect those smaller vessels, fishermen agreed to a two-step allocation approach which ensures that even small participants receive a significant allocation of fish. Specifically, the allocation was based on two factors; 1) catch history and 2) equal sharing of the fish that would have gone to boats that were retired in the federal buyback. The effect of this allocation approach was that the highliners, those that had the greatest catch history, received less fish than they would have if allocation had been based on that factor alone, while smaller operators received more than they would have based strictly on catch history.
- **Concern over port impacts** – Another concern is that some ports and communities may be disadvantaged by the allocation itself or by quota transfers after the allocation. EDF developed a tool called the Adaptive Management Program that could be used to help ensure that traditional fishing ports continue to receive landings of groundfish. The Adaptive Management Program takes 10% of the trawl total allowable catch and dedicates it to a public trust pool to respond to any unanticipated consequences that may arise from the transition to catch shares management. For example, it could be used to provide incentives to fishermen to continue to land in certain ports, if it was determined that those ports were vulnerable to losing landings. In addition, the Council is currently developing a tool to be added to the program in a trailing amendment, called Community Fishing Associations (CFAs). These will enable community members to hold quota in common, and may entitle fishing communities to certain special privileges to ensure continued groundfish landings and maintain important fishing heritage.
- **Concern over new entrants** – Throughout the process, there was also interest in ensuring that young fishermen and crewmembers would be able to enter the fishery. To that end, the Council made the quota divisible down to the single pound level, meaning that young fishermen can buy in slowly, one pound at a time. Likewise, as some fishermen leave the fishery, permits will become available for purchase. In addition, quota from the Adaptive Management Program mentioned above could be leased or loaned to new entrants to enable them to enter the fishery at reduced cost. Finally, most fishermen currently in the fleet are approaching retirement age. That is in part because it is a difficult occupation, but also because few young people want to enter the fishery as there is little money to be made. Fishery management reform should reverse that trend, and improved economics in the fishery is likely to attract new participants.

## CONCLUSION

The trawl catch shares program was developed in an open, stakeholder-driven process over six years. It was designed to improve the economics in the fleet and reduce bycatch and other environmental damage. Special care was taken to ensure that independent operators will continue to have opportunities, that historic ports will continue to receive landings, that new entrants will be able to get into the fishery, and that there will once again be a vibrant groundfish fleet on the West Coast.